

Appl. No. 10/726,474
Reply to Office action of 08/19/2005

REMARKS

Reconsideration of the above-referenced application in view of the above amendment, and of the following remarks, is respectfully requested.

Claims 1-5, 7, 8, 10, and 12-14 are pending in this case. Claims 1, 2, 7, 10, and 12 are amended herein and claims 6, 9, 11, and 15-23 are cancelled herein.

The Examiner rejected claims 1 and 3-14 under 35 U.S.C. 102(e) as being anticipated by Davis et al. (U.S. Patent 6,650,010).

Applicant respectfully submits that amended claim 1 is unanticipated by Davis as there is no disclosure or suggestion in Davis of a plurality of ILD layers each having a low dielectric constant (k), at least one support structure disposed in each of the ILD layers, at least one additional ILD layer having a dielectric constant which is higher than the low-k ILD layers overlying the low-k inter-level dielectric layers, and a contact layer overlying the at least one additional ILD layer and the support structures. Davis teaches a mesh-like reinforcing interconnection structure 35 located in a peripheral region external to the bond pads. The reinforcing structure of Davis extends through several interconnect layers. Davis further teaches a passivation layer 73 over the structure. However, Davis does not teach the additional ILD layer having a higher dielectric constant being located below a contact layer as claimed. The passivation layer 73 is the topmost layer in Davis. There is no contact layer over a higher dielectric constant layer. Accordingly, Applicant respectfully submits that claim 1 and the claims dependent thereon are unanticipated by Davis.

Applicant respectfully submits that claim 8 is further unanticipated by Davis as there is no disclosure or suggestion of the support structures being located underneath the source of the stress to mitigate damage to the semiconductor device, wherein the source of the stress is a bond pad location. As discussed in Col. 3 lines 61-67 and

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shown in FIG. 2, the reinforcing structure 35 in Davis is formed in a periphery region 33 external to the bond pads 31 instead of underneath them as claimed. The metal pads 45 of Davis are part of the reinforcing structure 35 and are not bond pads 31. Accordingly, Applicant respectfully submits that claim 8 is further unanticipated by Davis.

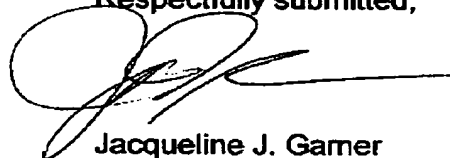
Applicant respectfully submits that amended, and now independent, claim 12 and claims 13, 14 dependent thereon are unanticipated by Davis for reasons similar to that discussed above regarding claim 1.

The Examiner rejected claim 2 under 35 U.S.C. § 103(a) as being unpatentable over Davis et al. (U.S. Patent 6,650,010) in view of Davis et al. (U.S. Patent 6,650,010).

Applicant respectfully submits that dependent claim 2 is patentable over Davis for the same reasons discussed above relative to claim 1 from which claim 2 depends.

In light of the above, Applicant respectfully requests withdrawal of the Examiner's rejections and allowance of claims 1-5, 7, 8, 10, and 12-14. If the Examiner has any questions or other correspondence regarding this application, Applicant requests that the Examiner contact Applicant's attorney at the below listed telephone number and address.

Respectfully submitted,



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